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Patent

SEP 14 2006

Customer No.: 31561
Docket No. : 8423-US-PA
Application No.: 10/064,455

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Applicant : Chia-Hui Han
Application No. : 10/064,455
Filed : July 17, 2002
For : NETWORK INTERFACE SYSTEM SUPPORTING A
PLURALITY OF PHYSICAL LAYERS AND THE METHOD
THEREOF
Art Unit : 2153
Examiner : AVALON, BLENMAN

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**UNDER 37 C.F.R. §41.37**

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(Via fax: 1+18 pages)

U.S. Patent and Trademark Office
Commissioner for Patents
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Randolph Building, 401 Dulany Street
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Dear Sir,

In response to the Notification of Non-Compliant Appeal Brief dated August 15, 2006, Applicant hereby respectfully submits an amended Appeal Brief with corrections as required by the Examiner in said Notification to avoid dismissal of the appeal. Attached herewith please find the amended Appeal Brief in 18 pages.

Thank you for your assistance in the subject matter. If you have any questions, please feel free to contact me.

Respectfully Submitted,
JIANQ CHYUN Intellectual Property Office

Date: Sept. 14, 2006By: Belinda Lee

Belinda Lee

Registration No.: 46,863

Please send future correspondence to:

7F. -1, No. 100, Roosevelt Rd.,

Sec. 2, Taipei 100, Taiwan, R.O.C.

Tel: 886-2-2369 2800 Fax: 886-2-2369 7233 / 886-2-2369 7234

E-MAIL: Belinda@JCIPGroup.com.tw; USA@JCIPGroup.com.tw

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

EX PARTE Chia-Hui Han

Application for Patent

Filed July 17, 2002

Serial No. 10/064,455

**FOR:
NETWORK INTERFACE SYSTEM SUPPORTING A
PLURALITY OF PHYSICAL LAYERS AND THE METHOD
THEREOF**

(as amended)

AMENDED APPEAL BRIEF

**JIANQ CHYUN Intellectual Property
Representatives for Applicants**

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I. REAL PARTY IN INTEREST

The real party in interest is Chia-Hui Han, the inventor named in the subject application, and VIA TECHNOLOGIES, INC., the assignee of record.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals and/or interferences.

III. STATUS OF THE CLAIMS

A total of 12 claims were presented during prosecution of this application. Applicant appeals rejected claims 1-12.

IV. STATUS OF THE AMENDMENTS

Applicant did not file any Amendments after Final Rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed subject matter of independent claim 1 involved in the appeal is directed to a network interface system, capable of supporting a plurality of physical layers (as shown in FIG.1 and as discussed in Lines 1-3 of Para. [0016]). The network interface system comprises a network interface adapter 100 and a computer system 150 (FIG.1 and Lines 8-10 of Para. [0016]). The network interface adapter 100 supports the plurality of physical layers and connects to a computer network 198 or 199 (FIG.1 and Lines 3-5 of Para. [0016]). The network interface adapter 100 comprises a physical layer chip 160, a device code storage device 170, a magnetic inductor 180, a first type connector 190 and a second type connector 195 (FIG.1 and Lines 1-3 of Para. [0017]). The physical layer chip 160 is capable of supporting the plurality of physical layers (FIG.1 and Lines 5-6 of Para. [0017]). The device code storage device 170 stores a device code of the network interface adapter 100 (FIG.1 and Lines 13-16 of Para. [0017]). The magnetic inductor 180 is used for coupling the physical layer chip 160 with the first type connector 190 and a second type connector 195 and for interfacing between the physical layer chip 160 and the computer network 198 or 199 (FIG.1 and Lines 7-13 of Para. [0017]). The first type connector 190 couples the magnetic inductor 180 with the computer network 198 through one of the network physical layers (FIG.1 and

Lines 9-13 of Para. [0017]). The second type connector 195 couples the magnetic inductor 180 with the computer network 199 through one of the network physical layers (FIG.1 and Lines 9-13 of Para. [0017]). The computer system 150, for inserting the network interface adapter supporting the plurality of physical layers, comprises a central processing unit (CPU) 110, a chipset 120, and a basic input/output 130 (FIG.1 and Lines 19-21 of Para. [0017]). The basic input/output 130 provides a selection screen of the network physical layers and reading the device code, so as to calculate a simulation device code corresponding to a selected network physical layer according to the selected network physical layer and the device code (FIG.1 and Lines 21-24 of Para. [0017]). The chipset 120 is coupled to the basic input/output system 130, and is embedded a network media access controller to provide an interface 140 for the network interface adapter 100 (FIG.1 and Lines 28-31 of Para. [0017]). The central processing unit (CPU) 110, coupled to the chipset 120 to execute an operating system of the computer system 150, the basic input/output system 130, and set up a device driver of the computer system 150 according to the simulation device code (FIG.1 and Lines 32-36 of Para. [0017]).

The claimed subject matter of independent claim 7 involved in the appeal is directed to a network interface system, suitable for a computer network, as shown in FIG.1. The network interface system comprises a network interface adapter 100 and a computer system 150 (FIG.1 and Lines 8-10 of Para. [0016]). The network interface adapter 100 supports the plurality of physical layers and connects to a computer network 198 or 199. The network interface adapter 100 has a plurality of network physical layers and a device code, and is able to connect the computer network 198 or 199 through one of the network physical layers (FIG.1 and Lines 3-5 of Para. [0016]). The computer system 150 is used to insert the network interface adapter 100 and drives the network interface adapter 100 according to one of the network physical layers selected by a user (FIG.1 and Lines 19-21 of Para. [0017]). After the user installs a plurality of device drivers supporting the network physical layers, if the selected network physical layer is to be changed, another physical layer is selected from a screen provided by the basic input/output system 130 of the computer system 150 (FIG.2, and Lines 1-5 of Para. [0018]). Then, the basic input/output system 130 reads the device code provided by the network interface adapter 100 to calculate a simulation device code corresponding to the selected network physical layer according to the network physical layer selected and the device code read, so that the device driver is enabled (FIG.2, and Lines 1-5 of Para. [0018]).

The claimed subject matter of independent claim 8 involved in the appeal is directed

to a method for supporting a plurality of physical layers, suitable for a computer system with a network interface adapter supporting the plurality of physical layers, as shown in FIG.1 and FIG.2. As shown in FIG.1, the network interface adapter 100 comprises a plurality of network physical layers and a device code (FIG.1, Lines 10-13 of Para. [0016] and Lines 4-6 of Para. [0019]). The computer system 150 has a basic input/output system 130, and has installed a plurality of device drivers supporting the network physical layers (FIG.1, Lines 19-21 of Para. [0017] and Lines 6-8 of Para. [0019]). The method comprises providing a selection setup screen of the basic input/output system 130 to select one of the network physical layers, which is physically used, as defined in step S210 (FIG.2, Lines 8-10 of Para. [0019]). As defined in step S220, reading the device code provided by the network interface adapter 100 (FIG.2, Lines 10-11 of Para. [0019]). As in step S230, according to the selected network physical layer and the read device code, a simulation device code is calculated corresponding to the selected network physical layer to enable one of the device drivers (FIG.2, Lines 11-14 of Para. [0019]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Were claims 7 and 8 properly rejected under 35 U.S.C. 102(e) as being anticipated by McIntyre (U.S. Pat. No. 6,381,218, hereinafter "McIntyre")
- B. Were claims 1-6 and 9-12 properly rejected under 35 U.S.C. 103(a) as being unpatentable over by Szczepanek (U.S. Pat. No. 5,321,819, hereinafter "Szczepanek") in view of McIntyre?

VII. ARGUMENTS

A. The related law

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004).

The Federal Circuit stated the general principle that since during prosecution, claims "must" be given their "broadest reasonable interpretation," this court reviews the Board's interpretation of disputed claim language to determine whether it is "reasonable" in light of all the evidence before the Board. *In Re Michael C. Scroggie* (Fed. Cir. March 13, 2006).

This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)

Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say.).

"[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, ___F.3d___, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc).

The ordinary and customary meaning of a term may be evidenced by a variety of sources, *Phillips v. AWH Corp.*, ___F.3d___, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc), including: the claims themselves, *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999); dictionaries and treatises, *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002); and the written description, the drawings, and the prosecution history, see, e.g., *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1324, 57 USPQ2d 1889, 1894 (Fed. Cir. 2001).

A prima facie case of obviousness requires that the reference teachings "appear to have suggested the claimed subject matter." *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143, 147 (CCPA 1976). To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

When more than one reference or source of prior art is required in establishing the obviousness rejection, "it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification." *In re Lahu*, 747 F.2d 703, 223 USPQ 1257, 1258 (Fed. Cir. 1984). There must be some motivation to combine the references; this motivation must come from "the nature of the problem to be solved, the teachings of the prior art, [or] the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

Finally, if an independent claim is nonobvious under 35 U.S.C. 103 (or unanticipated under 35 U.S.C. 102), then any claim depending therefrom is nonobvious (or unanticipated). *In re Fine*, 837 F.2d 1071, 5 USPQ2d, 1596 (Fed. Cir. 1988).

B. Grouping of the claims

For the ground of rejection contested by appellant in this appeal, claims 1-6 and 12 may be treated as one group to stand or fall together, and claims 7-11 may be treated as one group to stand or fall together. Claims 1, 7 and 8, the independent claims pending, may be taken as representative for the issues on appeal

C. Claims 7 and 8 were improperly rejected under 35 U.S.C. 102(e) as being anticipated by McIntyre (U.S. Pat. No. 6,381,218, hereinafter "McIntyre").

The Examiner rejected claims 7 and 8 as being anticipated by McIntyre.

Applicant respectfully disagrees with such assertion in the Office Action that McIntyre shows all the limitations of the instant invention as defined in claims 7 and 8.

In regards to Claim 7, at least the features "a network interface adapter ... has a plurality of network physical layers and a device code" and "after the user installs a plurality of device drivers supporting the network physical layers, if the selected network physical layer is to be changed, another physical layer is selected from a screen provided by the basic input/output system of the computer system; and then, the basic input/output system reads the device code provided by the network interface adapter to calculate a simulation device code corresponding to the selected network physical layer according to the network physical layer selected and the device code read, so that the device driver is enabled" in claim 7 are not taught in McIntyre.

In regards to Claim 8, at least the features "the network interface adapter comprises a plurality of network physical layers and a device code" and "according to the selected network physical layer and the read device code, calculating a simulation device code corresponding to the selected network physical layer to enable one of the device drivers" in claim 8 are not taught in McIntyre.

The Examiner has alleged in the Office Action dated October 19, 2005 that McIntyre discloses a network interface adapter, for coupling the computer network, wherein the network interface adapter has a plurality of network physical layers and a device code (driver) [col.6, lines 8-12, 27-28, col.6, line 47-col.7, line 14]. The Examiner has also alleged in the Office Action dated October 19, 2005 that McIntyre discloses the basic input/output system

reads the device code (driver) provided by the network interface adapter to calculate a simulation device code ("determination logic") corresponding to the selected network physical layer according to the network physical layer selected and the device code read, so that the device driver is enabled [col.8, lines 30-39, col.14, line 54-col.15, line 14].

Furthermore, the Advisory Action dated Jan. 18, 2006 has stated that the request for reconsideration has been considered but does not place the application in condition for allowance because: McIntyre read on the claimed limitation given the broadest interpretation of an input/output device, and the limitation of claim 1 (lines 17-18) discusses calculating a "simulation device code corresponding to the selected network physical layer". Further the disclosure (abstract) asserts calculating "the simulation device code corresponding to the selected network physical layer according to the setup and the read from the network interface adapter, so that the computer system is able to recognize and enable the appropriate device driver of the physical layer". Examiner alleged that a device driver enables an operating system to interact with a hardware device. The driver provides the operating system with the information on how to control/communicate with the hardware device. It is therefore inherent that this information would specify the kind of network device ("Subsystem ID" as argued) as well as the manufacturer code ("Subvendor ID" as argued).

The Applicant respectfully disagrees based on the following:

1. The alleged "NIC" and "driver" taught in McIntyre, as evidenced in col.6, lines 8-12, 27-28, col.6, line 47-col.7, line 14, are not the "the network interface adapter 100 supporting a plurality of physical layers only provides a device code" as claimed in claim 7.

As stated in the McIntyre, each network interface card (NIC) has its own NIC driver to establish a communication link between a computer and the network supported by the bound NIC. In the architecture provided by the McIntyre, in Figure 2, the NICs N1-N4 each comprises a single port to provide a respective link L1-L4 (see col. 6, lines 22-24). As shown in FIG. 3, four NIC drivers D1-D4 are installed on the computer system 100, each for supporting and enabling communications with a respective port of one of the NICs N1-N4 (see col. 6, lines 47-50). If any one of the network ports has not received a directed packet within a predetermined time period, the driver system commands another network port to transmit a directed heartbeat packet to the network port that has not received a directed packet. (Abstract)

However, in the present invention, the network interface adapter 100 supporting a plurality of physical layers only provides a device code, but does not provide different codes corresponding to different network physical layers. *(see Lines 4-6 on Page 6)* It is different from the McIntyre that each of the network interface cards (NICs) supports a communication link between a computer and the network supported and by transmitting a directed heartbeat packet to check the network port that has not received a directed packet.

Therefore, "a network interface adapter ... has a plurality of network physical layers and a device code" defined in claim 7 is clearly not present.

2. McIntyre does not disclose the basic input/output system as defined in the claim 7

As stated above, in the McIntyre, each network interface card (NIC) has its own NIC driver to establish a communication link between a computer and the network supported by the bound NIC. It is not required in the McIntyre to "read the device code provided by the network interface adapter to calculate a simulation device code corresponding to the selected network physical layer according to the network physical layer selected and the device code read, so that the device driver is enabled" as defined in claim 7. Instead, as shown in FIG. 3 of the McIntyre, four NIC drivers D1-D4 are installed on the computer system 100, each for supporting and enabling communications with a respective port of one of the NICs N1-N4 *(see col. 6, lines 47-50)*.

However, in the present invention, it is required to calculate a simulation device code corresponding to the selected network physical layer according to the network physical layer selected and the device code read in the invention. As clearly disclosed in *Lines 3-9 on Page 7 of the Specification*, "since the interface adapter only has a device code, it is not able to provide the upper layer program to distinguish the physical layer that is physically connected. The computer system 150 shown in the diagram comprises a basic input/output system 130, a chipset 120 and a central processing unit (CPU) 110. The basic input/output system provides the selection screen of the network physical layers and reads the device code, and calculates a simulation device code corresponding to the selected network physical layer according to the selected network physical layer and the device code."

Therefore, "the simulation device code corresponding to the selected network physical layer according to the setup and the read from the network interface adapter, so that

the computer system is able to recognize and enable the appropriate device driver of the physical layer" defined in claim 7 is clearly not present.

Furthermore, "the network interface adapter comprises a plurality of network physical layers and a device code" and "according to the selected network physical layer and the read device code, calculating a simulation device code corresponding to the selected network physical layer to enable one of the device drivers" defined in claim 8 is clearly not present.

As a result, claims 7 and 8 are patentable over McIntyre.

D. Claims 1-6 and 9-12 were improperly rejected under 35 U.S.C. 103(a) as being unpatentable over by Szczepanek (U.S. Pat. No. 5,321,819, hereinafter "Szczepanek") in view of McIntyre (U.S. Pat. No. 6,381,218, hereinafter "McIntyre").

The Examiner rejected Claims 1-6 and 9-12 under 35 U.S.C. 103(a) as being unpatentable over by Szczepanek in view of McIntyre.

Applicant respectfully disagrees with such assertion in the Office Action that Szczepanek in view of McIntyre shows all the limitations of the instant invention as defined in Claims 1-6 and 9-12.

The Examiner has alleged in the Office Action dated October 19, 2005 that Szczepanek discloses all features except for a second type connector or an input/output system. Nonetheless, in analogous art, McIntyre discloses a second type connector, an input/output system, a chipset and a CPU. Given the teaching of McIntyre, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system/method disclosed by Szczepanek to include a second type connector, a basic input/output system, a chip set, and a CPU. The motivation as suggested by Szczepanek would be to allow a user to configure the network interface adaptor, based on the desired operating mode or physical layer. [col.14, lines 50-65]

Furthermore, the Advisory Action dated Jan. 18, 2006 has stated that the request for reconsideration has been considered but does not place the application in condition for allowance because: McIntyre read on the claimed limitation given the broadest interpretation of an input/output device, and the limitation of claim 1 (lines 17-18) discusses calculating a "simulation device code corresponding to the selected network physical layer". Further the disclosure (abstract) asserts calculating "the simulation device code corresponding to the selected network physical layer according to the setup and the read from the network interface adapter, so that the computer system is able to recognize and enable the appropriate

device driver of the physical layer". Examiner alleged that a device driver enables an operating system to interact with a hardware device. The driver provides the operating system with the information on how to control/communicate with the hardware device. It is therefore inherent that this information would specify the kind of network device ("Subsystem ID" as argued) as well as the manufacturer code ("Subvendor ID" as argued).

The Applicant respectfully disagrees based on the following:

1. The combination of Szczepanek in view of McIntyre fails to establish a *prima facie* case of obviousness

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue.

As admitted by the Examiner, the Szczepanek fails to disclose a second type connector or an input/output system as claimed in claim 1. However, McIntyre can not remedy the deficiency of the Szczepanek for at least the reason set forth above that McIntyre does not disclose the "a basic input/output, for providing a selection screen of the network physical layers and reading the device code, so as to calculate a simulation device code corresponding to a selected network physical layer according to the selected network physical layer and the device code" as claimed in claim 1.

The combination of Szczepanek in view of McIntyre does not disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue and fails to establish a *prima facie* case of obviousness.

2. No motivation to combine Szczepanek with of McIntyre

As described in MPEP 2143.01, "[t]here are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998)."

The nature of the problem to be solved with respect to Claims 1-6 and 9-12 is clearly disclosed in Lines 3-9 on Page 7 of the Specification, "since the interface adapter only has a device code, it is not able to provide the upper layer program to distinguish the physical layer that is physically connected. The computer system 150 shown in the diagram comprises a basic input/output system 130, a chipset 120 and a central processing unit (CPU) 110. The

basic input/output system provides the selection screen of the network physical layers and reads the device code, and calculates a simulation device code corresponding to the selected network physical layer according to the selected network physical layer and the device code."

Szczepanek discloses an interface device for coupling a host device having a network interface to a computer network having a predetermined communications medium and a predetermined communications physical layer. However, McIntyre discloses that each network interface card (NIC) has its own NIC driver to establish a communication link between a computer and the network supported by the bound NIC. As shown in FIG. 3 of the McIntyre,, four NIC drivers D1-D4 are installed on the computer system 100, each for supporting and enabling communications with a respective port of one of the NICs N1-N4 (see col. 6, lines 47-50).

No motivation to combine Szczepanek with of McIntyre to render claim 1 obvious because that none of the cited references try to solve the nature of the problem that "since the interface adapter only has a device code, it is not able to provide the upper layer program to distinguish the physical layer that is physically connected". In the invention, a solution is provided by the basic input/output system, which provides the selection screen of the network physical layers and reads the device code, and calculates a simulation device code corresponding to the selected network physical layer according to the selected network physical layer and the device code.

Based upon the above traversal, the cited reference of Szczepanek is not applicable at all for use in a rejection under 35 U.S.C. 103(a) in view of McIntyre.

Without the use of McIntyre, the teachings from Szczepanek are completely insufficient to form a rejection under 35 U.S.C. 103(a) over dependent Claims 1-6 and 9-12 based upon the following:

Therefore, dependent Claims 1-6 and 9-12 should all be allowed.

For at least the foregoing reasons, Applicants respectfully submit that claims 1-6 and 9-12 patently define over Szczepanek and McIntyre, and therefore should be allowed. Reconsideration and withdrawal of the above rejections is respectfully requested.

E. Conclusion

In view of the above discussion, Applicant believes that the rejections under 35 U.S.C. 102 and 35 U.S.C. 103 are in error, and respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's rejections of the claims on appeal.

Date : *Sept . 14, 2006*

Respectfully submitted,

Belinda Lee
Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: Usa@icipgroup.com.tw

VIII. CLAIM APPENDIX

Claim 1. (previously presented) A network interface system, capable of supporting a plurality of physical layers, comprising:

a network interface adapter supporting the plurality of physical layers, for connecting to a computer network, and further comprising:

a physical layer chip, capable of supporting the plurality of physical layers;

a device code storage device, for storing a device code of the network interface adapter supporting the plurality of physical layers;

a magnetic inductor, for coupling the physical layer chip, and interfacing between the physical layer chip and the computer network;

a first type connector, coupling the magnetic inductor with the computer network through one of the network physical layers; and

a second type connector, for coupling the magnetic inductor with the computer network through one of the network physical layers; and

a computer system, for inserting the network interface adapter supporting the plurality of physical layers, and further comprising:

a basic input/output, for providing a selection screen of the network physical layers and reading the device code, so as to calculate a simulation device code corresponding to a selected network physical layer according to the selected network physical layer and the device code;

a chipset, coupled to the basic input/output system, and embedded a network media access controller to provide an interface for the network interface adapter supporting the plurality of physical layers; and

a central processing unit (CPU), coupled to the chipset to execute an operating system of the computer system, the basic input/output system, and set up a device driver of the computer system according to the simulation device code.

Claim 2. (Original) The network interface system of claim 1, wherein the physical layer chip supports at least any two of the network physical layers of Ethernet, HomeNet, Wireless LAN and Home Plug.

Claim 3. (Original) The network interface system of claim 2, wherein the computer system at least has installed any two of the device drivers of the network physical layers of Ethernet, HomeNet, Wireless LAN and Home Plug.

Claim 4. (Original) The network interface system of claim 1, wherein the interface complies with the advanced communication riser interface standard defined by US AMD Corporation.

Claim 5. (Previously Presented) The network interface system of claim 4, wherein the operating system is a Windows operating system.

Claim 6. (Original) The network interface system of claim 1, wherein the basic input/output system program provides a manual option and an automatic option, wherein when the automatic mode is selected by the user, the computer system automatically detects the network physical layer that is physically connected, and calculates the simulation device code for the computer system to recognize the connected network physical layer according to the detected result.

Claim 7. (Previously Presented) A network interface system supporting a plurality of physical layers, suitable for a computer network, comprising:

a network interface adapter, for coupling the computer network, wherein the network interface adapter has a plurality of network physical layers and a device code, and is able to connect the computer network through one of the network physical layers; and

a computer system, wherein, the computer system is used to insert the network interface adapter, and drives the network interface adapter supporting the plurality of physical layers according to one of the network physical layers selected by a user, wherein, after the user installs a plurality of device drivers supporting the network physical layers, if the selected network physical layer is to be changed, another physical layer is selected from a screen provided by the basic input/output system of the computer system; and then, the basic input/output system reads the device code provided by the network interface adapter to calculate a simulation device code corresponding to the selected network physical layer according to the network physical layer selected and the device code read, so that the device driver is enabled.

Claim 8. (Previously Presented) A method for supporting a plurality of physical layers, suitable for a computer system with a network interface adapter supporting the plurality of physical layers, wherein, the network interface adapter comprises a plurality of network physical layers and a device code, the computer system has a basic input/output

system, and has installed a plurality of device drivers supporting the network physical layers, wherein the method comprises the steps of:

providing a selection setup screen of the basic input/output system to select one of the network physical layers, which is physically used;

reading the device code provided by the network interface adapter supporting the plurality of physical layers; and

according to the selected network physical layer and the read device code, calculating a simulation device code corresponding to the selected network physical layer to enable one of the device drivers.

Claim 9. (Previously Presented) The method of claim 8, wherein the network interface adapter supporting the plurality of physical layers at least supports any two of the network physical layers of Ethernet, HomeNet, Wireless LAN and Home Plug.

Claim 10. (Previously Presented) The method of claim 9, wherein the computer system at least has installed any two of the device drivers of the network physical layers of Ethernet, HomeNet, Wireless LAN and Home Plug.

Claim 11. (Previously Presented) The method of claim 8, wherein the basic input/output system program provides a manual option and an automatic option, wherein when the automatic mode is selected by the user, the computer system automatically detects the network physical layer that is physically connected, and calculates the simulation device code for the computer system to recognize the physically connected physical layer according to the detected result.

Claim 12. (Previously Presented) The network interface system of claim 5, wherein the device code comprises a SubSystem ID and a SubVendor ID of the PCI configuration.

IX. EVIDENCE APPENDIX

None